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Notice of Allowability

Application No.

09/575,033

Examiner

Inder P. Mehra

Applicant(s)

MOTTONEN ET AL.

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to response dated 10/20/05.
2. ☒ The allowed claim(s) is/are 1-2,4,3,5-6,8-9,7,and 10-17(Renumbered as 1-17 respectively).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

1. This office action is in response to "response to office action" dated: 10/20/05.

Allowable Subject Matter

2. Claims 1-17 are allowed.

REASONS FOR ALLOWANCE

3. The following is an examiner's statement of reasons for allowance:

The prior art does not disclose or teach directly or indirectly the following limitations in combination with other limitations of the claims:

As recited by claim 1,

"rotating control channels belonging to a serving time group over non-sequential, alternate timeslot numbers within a frame".

As recited by claim 3,

"rotating control channels belonging to a serving time group over every other timeslot number,

wherein a mapping of the control channels on timeslot numbers is defined by the following formula:

For $0 \leq FN \bmod 52 \leq 3$, $TN = ((6 \times ((FN \bmod 52) \bmod 4)) + 1 + (2 \times TG)) \bmod 8$; and

For $4 \leq FN \bmod 52 \leq 51$, $TN = ((6 \times ((FN \bmod 52) \bmod 4)) + 7 + (2 \times TG)) \bmod 8$,

where TG is a time group value".

AS recited by claim 5,

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“rotate the transmission of control channels belonging to a serving time group over non-sequential, alternate timeslot numbers within a frame for enabling said mobile station to perform reselection measurements on neighboring base transceiver stations”.

As recited by claim 7,

“rotate the transmission of control channels belonging to a serving time group over every other timeslot number for enabling said mobile station to perform reselection measurements on neighboring base transceiver stations without dropping traffic”.

“rotating control channels belonging to a serving time group over every other timeslot number,

wherein a mapping of the control channels on timeslot numbers is defined by the following formula:

For $0 \leq FN \bmod 52 \leq 3$, $TN = ((6 \times ((FN \div 52) \bmod 4)) + 1 + (2 \times TG)) \bmod 8$; and

For $4 \leq FN \bmod 52 \leq 51$, $TN = ((6 \times ((FN \div 52) \bmod 4)) + 7 + (2 \times TG)) \bmod 8$,

where TG is a time group value”.

As recited by claims 10 and 13,

“rotate the transmission of a control channel belonging to a serving time group over odd timeslot numbers in a repeating sequence given as 7, 5, 3, 1, 7, 5,..., where the rotation occurs within a frame between two predetermined frame numbers (FNS)”.

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As recited by claims 12 and 14,

“rotate the transmission of a control channel belonging to a serving time group over odd timeslot numbers in a repeating sequence given as 7, 5, 3, 1, 7, 5,..., where the rotation occurs within a frame between two predetermined frame numbers (FNS)”,

wherein a mapping of the control channels on timeslot numbers is defined by the following formula:

For $0 \leq \text{FN mod } 52 \leq 3$, $\text{TN} = ((6 \times ((\text{FN div } 52) \bmod 4)) + 1 + (2 \times \text{TG})) \bmod 8$; and

For $4 \leq \text{FN mod } 52 \leq 51$, $\text{TN} = ((6 \times ((\text{FN div } 52) \bmod 4)) + 7 + (2 \times \text{TG})) \bmod 8$,

where TG is a time group value”.

As recited by claim 15,

“wherein the rotation is performed so that at least one timeslot number used to transmit control channels in a frame corresponding to a given serving time group of a first 52-multiframe is different than at least one timeslot number used to transmit control channels in a frame corresponding to the given serving time group of a second 52-multiframe”.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

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Prior Art of Record

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Jyrkka et al. (US Patent No. 6,587,695) discloses a method to distinguish a first type of control channel from a second type of control channel.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Inder P. Mehra whose telephone number is 571-272-3170. The examiner can normally be reached on Monday through Friday from 8AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Inder Pal Mehra 3/6/06
Inder P Mehra
Examiner
Art Unit 2666 *Seema S. Rao* 3/6/06
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